REMARKS

Claims 1, 3, 5, 8 and 10-11 are pending in the application. By this Amendment, claims 1, 5 and 10 are amended and claims 4, 9 and 12 are canceled without prejudice or disclaimer.

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (1) place the application in condition for allowance; (2) do not raise any new issues requiring further search and/or consideration; and/or (3) place the application in better form for appeal, should an appeal be necessary. More specifically, the above amendments incorporate features of dependent claims 4, 9 and 12 into independent claims 1, 5 and 10, respectively. Therefore, no new issues are raised. Entry is thus proper under 37 C.F.R. §1.116.

The Office Action objects to claim 1 because of informalities. Independent claim 1 is amended to change "abstracting" to --extracting--. A similar amendment is made to the previous claim 9. Withdrawal of the objection is respectfully requested.

The Office Action rejects claims 1, 3-5 and 8-12 under 35 U.S.C. §103(a) over U.S. Patent 5,917,865 to Kopmeiners et al. (hereafter Kopmeiners) in view of U.S. Patent 5,471,651 to Wilson. The rejection is respectfully traversed with respect to the pending claims.

Independent claim 1 recites extracting a maximum absolute value of a reception signal received by a receiver of a radio frequency communication system, determining a gain control value of the reception signal on the basis of the maximum absolute value and a predetermined threshold, and controlling gain of the reception signal according to the determined gain control value. Independent claim 1 also recites that the extracting the maximum absolute value comprises storing absolute values of the reception signal and extracting the maximum absolute

value from among the stored absolute values. Independent claim 1 also recites that the gain control value for amplifying the reception signal to make the extracted maximum absolute value consistent with the predetermined threshold, and that the predetermined threshold is a maximum absolute value of a predetermined reception signal.

The applied references do not teach or suggest all the features of independent claim 1. Independent claim 1 includes features recited in previous dependent claim 4. The Office Action asserts that Kopmeiners col. 5, line 64-col. 6, line 9 corresponds to features recited in previous dependent claim 4. Applicant respectfully disagrees.

Kopmeiners does not teach or suggest that the gain control value for amplifying a reception signal to make an extracted maximum absolute value consistent with a predetermined threshold, where the predetermined threshold is a maximum absolute value of a predetermined reception signal. The Office Action states that Kopmeiners compares a sampled signal peak level with an optimal predetermined target peak level to determine adjustment of a gain control signal. However, Kopmeiners actually discloses that a sampled peak signal is analyzed in order to determine whether it is within a dynamic range. If the signal is within the dynamic range, then a course adjustment may be made in order to set an output to approximate a target peak level. See col. 5, lines 8-25. This does not relate to making an extracted maximum absolute value consistent with a predetermined threshold (i.e., a maximum absolute value of a predetermined reception signal). Rather, this adjustment is merely to approximate a target peak level, which is not a maximum absolute value of a predetermined reception signal.

Furthermore, Kopmeiners' col. 5, line 64-col. 6, line 8 discusses an adjustment in which sampled peak levels are averaged together and an average peak level is compared to a target peak level. See steps 235, 240 and 245 of FIG. 2B. These features also do not teach or suggest that an extracted maximum absolute value is consistent with a predetermined threshold value. These features also do not teach or suggest that the predetermined threshold is the maximum absolute value of a predetermined reception signal. Rather, these features relate to comparing an average peak level with a target peak level. The disclosed average peak level does not correspond to an extracted absolute value. Further, the disclosed target peak level does not correspond to the claimed maximum absolute value of a predetermined reception signal.

For at least the reasons set forth above, Kopmeiners does not teach or suggest the features alleged in the Office Action (to correspond to the features of previous dependent claim 4).

Additionally, the Office Action (on page 4) states that Kopmeiners does not teach storing absolute values of the reception signal and extracting the maximum absolute value from among the stored absolute values. The Office Action then appears to cite Wilson's col. 6, line 30-col. 7, line 16 as corresponding to these features. However, the cited section discusses a store 10 that stores a block of data. A peak height detector 14 performs a window scanning routine that runs through a delayed audio from the store 10 and finds a peak envelope. Based on whether the peak exceeds a predetermined upper limit, an ideal gain calculator 20 computes an adjustment to be made to the gain to prevent the peak exceeding the predetermined limit. This does not teach or suggest storing absolute values of the reception signal and extracting the maximum absolute

value from among the stored absolute values. Rather, the store 10 stores a block of data, and the peak height detector 14 finds a peak envelope that goes over a predetermined upper limit. However, Wilson does not teach or suggest storing a plurality of absolute values. Furthermore, Wilson does not teach or suggest extracting the maximum absolute value from among the stored absolute values. Rather, Wilson compares against a predetermined upper limit. This does not necessarily correspond to a maximum absolute value. Furthermore, Wilson does not relate to a maximum of the stored absolute values and the use of the maximum absolute value for determining a gain value. Thus, Wilson does not teach or suggest the features alleged in the Office Action.

Furthermore, there is no suggestion to modify Kopmeiners so as to include the features of Wilson. The Office Action states that the motivation to combine the two references is to ensure that by the time the first peak to go over the predetermined upper limit arrives at the output, the gain has been adjusted to bring the highest peak in the window under the predetermined limit. Wilson clearly relates to storing a block of data. This differs significantly from Kopmeiners' peak detector and fine adjustment based on the peak. In other words, there is no suggestion to include an adjustment of all the block of data stored in the store 10 of Wilson. Rather, Kopmeiners specifically discloses a course adjustment and a fine adjustment based on a peak. There is no suggestion to modify this disclosure so as to store a block of data in the store 10 as disclosed in Wilson.

Applicant respectfully submits that Wilson may not be combined with Kopmeiners as discussed in the Office Action. Kopmeiners and Wilson also do not teach or suggest all the features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 5 recites that the means for extracting the maximum absolute value extracts the maximum absolute value from among the stored absolute values, and the means for determining the gain control value of the reception signal <u>determines the gain control value for amplifying the reception signal to make the abstracted maximum absolute value consistent with the predetermined threshold, wherein the threshold is a maximum absolute value of a predetermined reception signal</u>.

For at least similar reasons as set forth above, the applied references do not teach or suggest all the features of independent claim 5. Thus, independent claim 5 defines patentable subject matter.

Independent claim 10 recites a controller for extracting a maximum absolute value among the absolute values stored at the buffer, and determining a gain control value of the reception signal by comparing the extracted maximum absolute value with a predetermined threshold, and a multiplier for amplifying the reception signal by multiplying the reception signal by the determined gain control value, and outputting the amplified reception signal, wherein <u>the gain control value amplifies the reception signal making the extracted maximum absolute value consistent with the predetermined threshold, the predetermined threshold being a maximum value of a predetermined reception signal</u>.

For at least similar reasons as set forth above, the applied references do not teach or suggest all the features of independent claim 10. Thus, independent claim 10 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 5 and 10 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 3-5 and 8-12 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and

please credit any excess fees to such deposit account.

Respectfully submitted,

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